

City of Royal Oak  
Retiree Health Care Plan  
Actuarial Valuation Report  
as of June 30, 2024



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November 22, 2024

Ms. Kymberly Coy  
Finance Director  
City of Royal Oak  
211 S. Williams Street  
Royal Oak, Michigan 48067

**Re: City of Royal Oak Retiree Health Care Plan Actuarial Valuation as of June 30, 2024  
Actuarial Disclosures**

Dear Ms. Coy:

The results of the June 30, 2024 Annual Actuarial Valuation of the City of Royal Oak Retiree Health Care Plan are presented in this report.

This report was prepared at the request of the City and is intended for use by the City and those designated or approved by the City. This report may be provided to parties other than the City only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the System's funding progress and to determine the employer contribution rate for the fiscal years ending June 30, 2026 and June 30, 2027. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results, associated with the benefits described in this report, for purposes other than those identified above may be significantly different.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section F of this report.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through June 30, 2024. The valuation was based upon information furnished by the City, concerning Retiree Health Care benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal reasonability and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the City.

This report was prepared using assumptions adopted by the City. All actuarial assumptions used in this report are reasonable for the purposes of this valuation. All actuarial assumptions and methods used in the valuation follow the guidance in the applicable Actuarial Standards of Practice. Additional information about the actuarial assumptions is included in the section of this report entitled Actuarial Cost Method and Actuarial Assumptions.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

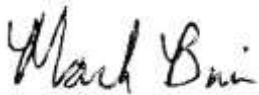
This report has been prepared by actuaries who have substantial experience valuing public retiree health programs. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the City of Royal Oak Retiree Health Care Plan as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Mark Buis and Michael D. Kosciuk are Members of the American Academy of Actuaries (MAAA). These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor

Gabriel, Roeder, Smith & Company will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,  
Gabriel, Roeder, Smith & Company



Mark Buis, FSA, EA, FCA, MAAA



Michael D. Kosciuk, FSA, EA, FCA, MAAA

MB/MDK:dj

C3249



## **Additional Disclosures Required by Actuarial Standards of Practice**

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

The funded ratio reported in this valuation is not appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations.

This report should not be relied on for any purpose other than the purpose described in the primary communication.

The signing actuaries are independent of the plan sponsor.



# EXECUTIVE SUMMARY

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# Executive Summary

## Actuarially Determined Contribution

Please note that beginning with the fiscal year ending June 30, 2017, GASB Statement No. 43 was replaced by GASB Statement No. 74. Also, beginning with the fiscal year ending June 30, 2018, GASB Statement No. 45 was replaced by GASB Statement No. 75. It is our understanding that the City of Royal Oak is required to comply with both GASB Statement Nos. 74 and 75, and as such requires GASB Statement Nos. 74 and 75 reporting information at the completion of each fiscal year.

We have calculated the Actuarially Determined Contribution for the fiscal years ending June 30, 2026 and June 30, 2027 under the interest rate assumption of 7.25%. Below is a summary of the results.

For additional details please refer to Section A, "Valuation Results."

	Actuarially Determined Contribution*	Estimated Premiums and Claims Paid for Retirees
Fiscal Year Ending June 30, 2026	\$ 0	\$ 7,979,607
Fiscal Year Ending June 30, 2027	0	8,383,411

\* Based on a 7.25% long-term rate of investment return.

## Liabilities and Assets – As of June 30, 2024

1. Present Value of Future Benefit Payments	\$114,982,095
2. Actuarial Accrued Liability	112,895,237
3. Plan Assets	154,639,107
4. Unfunded Actuarial Accrued Liability (2) – (3)	(41,743,870)
5. Funded Ratio (3)/(2)	137.0%

The Present Value of Future Benefit Payments (PVFB) is the present value of all benefits projected to be paid from the plan for past and future service. The Actuarial Accrued Liability is the portion of the PVFB allocated to past service by the Plan's funding method (see the section titled "Actuarial Cost Method and Actuarial Assumptions").

**SECTION A**

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**VALUATION RESULTS**



# Development of the Actuarially Determined Contribution for the Other Postemployment Benefits Fiscal Years Ending June 30, 2026 and June 30, 2027

Contributions for	Development of the Actuarially Computed Employer Contribution for July 1, 2025 - June 30, 2026		
	General	Police & Fire	Total
Normal Cost			
Normal Retirement	\$ 155,924	\$ 249,687	\$ 405,611
Early Retirement	0	0	0
Termination Benefits	0	3,932	3,932
Death-in-Service	1,546	983	2,529
Disability	0	8,192	8,192
Future Refund of Member Contributions	0	0	0
Total Normal Cost	\$ 157,470	\$ 262,794	\$ 420,264
Annual Active Member Contribution	0	0	0
Employer Normal Cost	157,470	262,794	420,264
Amortization of Unfunded Actuarial Accrued Liabilities	(1,725,212)	(2,952,012)	(4,677,224)
Actuarially Determined Contribution*	0	0	0

Contributions for	Actuarially Computed Employer Contribution for July 1, 2026 - June 30, 2027		
	General	Police & Fire	Total
Actuarially Determined Contribution*	\$ 0	\$ 0	\$ 0

\* As the Plan cannot contribute back to the employer, no employer contribution is required.

The unfunded actuarial accrued liabilities were amortized as a level dollar amount over a period of 14 years for the fiscal year ending June 30, 2026 and decreasing by one each year thereafter.

The long-term rate of investment return used in this valuation was 7.25%.



## Determination of Unfunded Actuarial Accrued Liability as of June 30, 2024

	General	Police & Fire	Total
A. Present Value of Future Benefits			
1. Retirees and Beneficiaries	\$34,064,741	\$60,539,869	\$ 94,604,610
2. Vested Terminated Members	247,917	0	247,917
3. Active Members	<u>8,315,570</u>	<u>11,813,998</u>	<u>20,129,568</u>
Total Present Value of Future Benefits	\$42,628,228	\$72,353,867	\$114,982,095
B. Present Value of Future Employer Normal Costs	985,125	1,101,733	2,086,858
C. Present Value of Future Contributions from Current Active Members	0	0	0
D. Actuarial Accrued Liability (A. - B. - C.)	41,643,103	71,252,134	112,895,237
E. Actuarial Value of Assets	57,040,956	97,598,151	154,639,107
F. Unfunded Actuarial Accrued Liability (D. - E.)	(15,397,853)	(26,346,017)	(41,743,870)

The long-term rate of investment return used in this valuation is 7.25%.

## Development of Valuation Assets

Year Ended June 30:	2023	2024	2025	2026	2027	2028
A. Valuation Assets Beginning of Year	\$ 144,255,383	\$ 147,092,986				
B. Market Value End of Year	144,239,399	158,053,220				
C. Market Value Beginning of Year	138,522,168	144,239,399				
D. Audit Adjustment	0	0				
E. Non-Investment Net Cash Flow	(6,343,950)	(3,973,030)				
F. Investment Income						
F1. Market Total: B - C - D - E	12,061,181	17,786,851				
F2. Amount for Immediate Recognition (7.25%)	10,228,547	10,520,219				
F3. Amount for Phased-In Recognition: F1-F2	1,832,634	7,266,632				
G. Phased-In Recognition of Investment Income						
G1. Current Year: 0.2 x F3	366,527	1,453,326				
G2. First Prior Year	(4,424,837)	366,527	\$ 1,453,326			
G3. Second Prior Year	5,350,901	(4,424,837)	366,527	\$ 1,453,326		
G4. Third Prior Year	(1,746,987)	5,350,901	(4,424,837)	366,527	\$ 1,453,326	
G5. Fourth Prior Year	(592,598)	(1,746,985)	5,350,900	(4,424,836)	366,526	\$ 1,453,328
G6. Total Phased-In Recognition	(1,046,994)	998,932	2,745,916	(2,604,983)	1,819,852	1,453,328
H. Valuation Assets End of Year: A + D + E + F2 + G6	147,092,986	154,639,107				
I. Difference between Market & Valuation Assets: B - H	(2,853,587)	3,414,113	668,197	3,273,180	1,453,328	0
J. Valuation Asset Recognized Rate of Return	6.51%	7.94%				
K. Market Value Recognized Rate of Return	8.91%	12.50%				

The Valuation Assets recognizes assumed investment income (line F2) fully each year. Differences between actual and assumed investment income (line F3) are phased-in over a closed five-year period. During periods when investment performance exceeds the assumed rate, Valuation Assets will tend to be less than Market Value. During periods when investment performance is less than the assumed rate, Valuation Assets will tend to be greater than Market Value. The Valuation Assets are unbiased with respect to Market Value. At any time, it may be either greater or less than Market Value. If assumed rates are exactly realized for four consecutive years, it will become equal to Market Value.

## Comments

**Comment A:** The Actuarially Determined Contribution decreased from \$1,519,662 in the June 30, 2022 valuation to \$0 in the June 30, 2024 valuation. Factors contributing to this decrease include, but are not limited to:

- Pre-65 medical and prescription drug per capita costs increasing by less than expected;
- Recognition of asset gains on a funding value of assets basis for the fiscal year ending June 30, 2024;
- Benefit changes:
  - A shift for most plan members from self-insured post-65 medical and prescription drug coverage to a fully-insured Medicare Advantage plan, effective July 1, 2023; and
- Assumption changes:
  - The assumed rates of retirement were reduced for General groups; and
  - Pre-65 medical and prescription drug inflation – the pre-65 medical and prescription drug inflation assumption was changed to anticipate a 7.25% trend rate initially, decreasing each year over 15 years, until reaching a long-term rate of 3.50%.

Partially offsetting the decrease are increases due to:

- Recognition of asset losses on a funding value of assets basis for the fiscal year ending June 30, 2023; and
- Assumption changes:
  - The mortality assumption was updated for all groups;
  - The assumed rates of retirement were increased for the Police and Fire groups and Police Service Aides; and
  - Post-65 medical and prescription drug inflation – the post-65 medical and prescription drug inflation assumption was changed to anticipate a 6.50% trend rate initially, decreasing each year over 15 years, until reaching a long-term rate of 3.50%.

The benefit changes noted above reduced liabilities by approximately \$50,436,000. The combined impact of the assumption changes noted above increased liabilities by approximately \$9,222,000.

**Comment B:** One of the key assumptions used in any valuation of the cost of postemployment benefits is the rate of return on Plan assets. Higher assumed investment returns will result in a lower Actuarially Determined Contribution. Lower returns will tend to increase the computed Actuarially Determined Contribution. Based on information from the plan sponsor, we have calculated the liability and the resulting Actuarially Determined Contribution using an assumed long-term rate of investment return of 7.25% similar to the Retirement System.

**Comment C:** The plan sponsor is required by GASB to perform actuarial valuations at least biennially or more frequently if significant changes in the OPEB are made in the interim.

**Comment D:** The period of years used to amortize (pay off) the unfunded accrued liability is 14 years beginning with the fiscal year ending June 30, 2026. The amortization period is closed. This means that the amortization period will decrease by one year each year until the unfunded (or overfunded) liability is paid off.

## Comments (Concluded)

**Comment E:** The GASB issued Statement Nos. 74 and 75 for OPEB valuations. GASB Statement No. 74 for the plan OPEB disclosures is effective for fiscal years beginning after June 15, 2016. GASB Statement No. 75 for employer OPEB disclosures is effective for employer fiscal years beginning after June 15, 2017. The GASB implementation guides for Statement Nos. 74 and 75 provide additional clarification related to the implementation of these Statements. It is our understanding that the City will need to comply with GASB Statement Nos. 74 and 75 for each future fiscal year ending June 30. The basis for the June 30, 2025 and June 30, 2026 GASB Statement Nos. 74 and 75 information is expected to be this valuation (as of June 30, 2024), where roll-forward techniques will be applied.

**Comment F:** Michigan Public Act 202 of 2017 created new reporting and other requirements for local units of government. The assumptions and/or methods used in this valuation **do not** fall in the range of uniform assumptions established by the Treasurer for PA 202 reporting purposes. The information necessary for PA 202 reporting purposes was provided in the GASB Statement Nos. 74 and 75 report.

**Comment G:** Unless otherwise indicated, a funded status measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regards to any funded status measurements presented in this report:

- The measurement is inappropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the plan's benefit obligations;
- A funded status measurement of 100% is not synonymous with no required future contributions. If the funded status were 100%, the Plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit); and
- The measurement is inappropriate for assessing the need for or the amount of future employer contributions.

## SECTION B

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### RETIREE PREMIUM RATE DEVELOPMENT

# Retiree Premium Rate Development

## Rate Development

The City offers benefits on a fully-insured basis and on a self-insured basis. The fully-insured and self-insured rates are developed separately and then blended together to create a single set of rates for use in the valuation.

Initial self-insured premium rates were developed for Non-Medicare (pre-65) retirees. The rates were calculated by using paid claims and exposure data for the period of April 2021 to March 2024, adjusted for catastrophic claims and prescription drug rebates, plus the load for administration, network access fee, and stop loss premiums. The Medical data was analyzed for the pre-65 and post-65 participants separately since Medicare is available for the post-65 participants and has a significant impact on the claim experience. Furthermore, since the prescription drug claims and the medical claims exhibit different trends and claim payment patterns, we analyzed these claims separately as well.

Initial fully-insured premium rates were developed for the two classes of retirees (pre-65 and post-65) covered under HAP. The fully-insured rates provided by the City were utilized to determine the appropriate premium rates. For the pre-65 and post-65 retirees, the fully-insured premium rate is used as the basis of the initial per capita cost without adjustments since the rates reflect the demographics of each of the retiree groups.

For the majority of post-65 retirees, the January 1, 2025 BCBS Medicare Advantage Prescription Drug (MAPD) renewal was used as the basis of the initial per capita cost since the rate reflects the demographics of the post-65 retiree group. There are a small number of post-65 retirees remaining in the BCBS self-insured program. For these members, the illustrative rate is used as a proxy for claim amounts.

For the current active employees, it was assumed they would retire into a BCBS Plan. We have developed separate premium rates for future retirees in order to reflect the benefit differences. Most retiree plans are closed to future retirees. The plans that remain open to future retirees are plans 0049 and 0051. The Medicare Advantage suffixes that are open to future retirees are 608 and 610.

Age-graded and sex-distinct premiums are utilized by this valuation. The premiums developed by the preceding process are appropriate for the unique age and sex distribution currently existing. Over the future years covered by this valuation, the age and sex distribution will most likely change. Therefore, our process “distributes” the average premium over all age/sex combinations and assigns a unique premium for each combination. The age/sex specific premiums more accurately reflect the health care utilization and cost at that age.



## Retiree Premium Rate Development (Continued)

The combined monthly one-person medical and drug premiums at select ages are shown below:

For Those Not Eligible for Medicare (Pre-65)				
Age	Future Retirees		Current Retirees	
	Male	Female	Male	Female
40	\$ 495.71	\$ 805.50	\$ 529.59	\$ 860.54
50	803.55	989.89	858.45	1,057.53
60	1,365.66	1,344.71	1,458.98	1,436.59
64	1,660.68	1,567.23	1,774.15	1,674.32

For Those Eligible for Medicare (Post-65)				
Age	Future Retirees		Current Retirees	
	Male	Female	Male	Female
65	\$ 285.06	\$ 268.87	\$ 413.65	\$ 390.16
75	333.52	325.45	483.97	472.25
85	352.68	356.83	511.77	517.80

The dental and vision premiums were not “age graded” for this valuation since these claims do not vary significantly by age. The combined dental and vision rates used in this valuation are \$44.50 for pre-65 participants and \$43.09 for post-65 participants.



# Retiree Premium Rate Development (Continued)

## Health Care Trend Assumption

The health care cost trend rate is the rate of change in per capita health care claims over time as a result of factors such as medical inflation, utilization of health care services, plan design, and technological improvements. It is a crucial economic assumption that is required for measuring retiree health care benefit obligations.

Retiree health care valuations use a health care cost trend assumption (trend vector) that changes over the years. The trend vector used in this valuation begins with a near-term trend assumption and declines over time to an ultimate trend rate. The near-term rates reflect the increases in the current cost of health care goods and services. The process of trending down to a lower ultimate trend relies on the theory that premium levels will moderate over the long-term; otherwise, the health care sector would eventually consume the entire GDP. It is on this basis that projected premium rate increases continue to exceed wage inflation, but by less each year, until leveling off at an ultimate rate (assumed to be 3.50% in this valuation). See below for further details regarding the trend vector used in this valuation.

While experience is often the best starting point for future costs, GRS does not rely on a group's experience in setting the near-term trend assumptions since trends vary significantly from year to year and are not credible for most groups. Therefore, professional judgment, trends from GRS' book of business, and industry benchmarks (e.g., trend reports from various Pharmacy Benefit Management (PBM) organizations and national health care benefit consulting firms) are used in conjunction with a group's historical experience to establish the trend assumptions.

Year Beginning July 1,*	Medical & Drug Pre-65	Medical & Drug Post-65	Dental & Vision
2025	7.25%	6.50%	3.50%
2026	7.00	6.25	3.50
2027	6.75	6.00	3.50
2028	6.50	5.75	3.50
2029	6.25	5.75	3.50
2030	6.00	5.50	3.50
2031	5.75	5.25	3.50
2032	5.50	5.00	3.50
2033	5.00	4.75	3.50
2034	4.75	4.50	3.50
2035	4.50	4.25	3.50
2036	4.25	4.25	3.50
2037	4.00	4.00	3.50
2038	3.75	3.75	3.50
2039 & Later	3.50	3.50	3.50

*\* Except for Medicare Part B Reimbursement which increases on January 1 each year.*



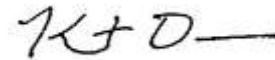
# Retiree Premium Rate Development (Concluded)

## Actuarial Disclosures

The premium rates used in this valuation were developed using proprietary Excel models which, in Kurt Dosson's professional judgment, provide initial projected costs which are consistent with the purposes of the valuation. We performed tests to ensure that the models, in their entirety, reasonably represent that which is intended to be modeled.

Aging factors used in the premium development models were developed based on information and data from a 2013 study commissioned by the Society of Actuaries entitled "Health Care Costs – From Birth to Death."

Kurt Dosson is a Member of the American Academy of Actuaries (MAAA) and meets the Qualification Standards of the American Academy of Actuaries to certify the per capita retiree health care rates shown above.



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Kurt Dosson, ASA, FCA, MAAA

## SECTION C

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### SUMMARY OF BENEFIT PROVISIONS

# City of Royal Oak Retiree Health Care Plan

## Summary of Benefits as of June 30, 2024

### Persons Covered

Health insurance coverage is provided by and paid for by the City for the following people:

- To retired members of the Retirement System if they meet the eligibility requirements for post-retirement medical benefits (see next page);
- To eligible spouses and/or dependents of eligible retirees during the retirees' lifetime;
- To eligible surviving spouses and/or dependents after the eligible retiree's death for members who retired on or after June 1, 1980. Spousal coverage does not continue for those who retired prior to June 1, 1980;
- To employees and eligible spouses and/or dependents who retire from a deferred status if they meet the minimum service requirements under their contract; and
- Eligible employees may elect to receive health insurance through their spouse's health care plan. The City will pay the employee 30% of the schedule applicable premium annually, up to a maximum of \$2,400.

**Note:** Eligible = covered spouse and/or dependents at time of retirement or termination if deferred.

### Benefits Provided

Retirees and their spouses are provided medical, prescription drug, dental, and vision coverage as well as reimbursed their Medicare Part B premiums. Benefits are provided as outlined in the labor contract/agreement under which the employee retired. (Some older contracts do not provide prescription drug, dental, and/or vision coverage.)



## City of Royal Oak Retiree Health Care Plan Summary of Benefits as of June 30, 2024

### Eligibility Requirements

Current active members are eligible to receive City paid health insurance upon retirement if they meet the eligibility requirements below:

Employee Group	Date of Closure to New Hires	Eligibility Requirements
SEIU AFL-CIO Local 517 M	7/1/2006	Age 55 with 20 years of service or Age 50 with 25 years of service
Foreman & Supervisors	7/1/2006	Age 55 with 20 years of service or Age 50 with 25 years of service
Department Heads and Deputies	7/1/2008	Age 55 with 20 years of service, Age 50 with 25 years of service, or Age 60 with 15 years of service
Executive Department Heads/Judges	5/1/2008	Age 55 with 20 years of service, Age 50 with 25 years of service, or Age 60 with 15 years of service
Professional & Technical/44th District Court	7/1/2007	Age 55 with 20 years of service, Age 50 with 25 years of service, or Age 60 with 15 years of service
AFSCME/TPOAM	7/1/2005	Age 55 with 20 years of service, Age 50 with 25 years of service, or Age 60 with 15 years of service
Police/PSA/Command/Detectives	3/27/2009	20 years of service
Fire	7/1/2009	20 years of service or Age 55 with 15 years of service
Police/Fire Department Heads		Since promoted from within, they revert back to Police or Fire group (original group hired into).

## **SECTION D**

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### **SUMMARY OF THE INFORMATION SUBMITTED FOR THE VALUATION**

# Reported Financial Information for the Year Ended June 30, 2024 (Market Value)

## Revenues and Expenditures during the Year

### Revenues:

a. Retiree contributions	\$ 0	
b. Employer contributions	1,521,253	
c. Interest and dividends	3,258,348	
d. Net Appreciation in Fair Value of Investments	15,272,121	
e. Other	282,644	
f. Total		\$20,334,366

### Expenditures:

a. Benefits paid	5,477,609	
b. Investment expense	1,026,262	
c. Administrative expenses	16,674	
d. Miscellaneous expenses	0	
e. Total		6,520,545

### Reserve Increase:

Total revenues minus total expenditures	<u><u>\$13,813,821</u></u>
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## Assets

### Assets:

a. Cash or equivalents	\$ 117,520
b. Receivables net of payables	(65,903)
c. Stocks	0
d. Fixed income	0
e. Real Estate Investment Fund	0
f. Mutual Funds	158,001,603
Total	<u><u>\$158,053,220</u></u>

## Total Active Members as of June 30, 2024 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
40-44				3	4			7	\$ 726,002
45-49				6	13	1		20	2,173,281
50-54				2	10	5		17	1,705,671
55-59				2	7	4		13	1,088,900
60-64					3	4	1	8	635,655
65 & Over					1		4	5	412,125
<b>Totals</b>				<b>13</b>	<b>38</b>	<b>14</b>	<b>5</b>	<b>70</b>	<b>\$6,741,634</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 52.8 years  
**Service:** 24.0 years  
**Annual Pay:** \$96,309



## General Active Members as of June 30, 2024 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
40-44				2	1			3	\$ 250,396
45-49				1	4	1		6	488,694
50-54				2	3	4		9	715,643
55-59					6	4		10	759,275
60-64					2	3	1	6	386,159
65 & Over					1		4	5	412,125
<b>Totals</b>				<b>5</b>	<b>17</b>	<b>12</b>	<b>5</b>	<b>39</b>	<b>\$ 3,012,292</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 55.6 years

**Service:** 25.7 years

**Annual Pay:** \$77,238

## Police and Fire Active Members as of June 30, 2024 by Age and Years of Service

Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
40-44				1	3			4	\$ 475,606
45-49				5	9			14	1,684,587
50-54					7	1		8	990,028
55-59				2	1			3	329,625
60-64					1	1		2	249,496
65 & Over									
<b>Totals</b>				<b>8</b>	<b>21</b>	<b>2</b>		<b>31</b>	<b>\$ 3,729,342</b>

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

**Age:** 49.2 years  
**Service:** 21.8 years  
**Annual Pay:** \$120,301

## Total Retired and Deferred Members as of June 30, 2024 by Age

Age	Retired Members	
	General	Police/Fire
Under 55	3	26
55-59	9	38
60-64	21	34
65 & Over	157	141
<b>Totals</b>	<b>190</b>	<b>239</b>

The number counts above include those retirees who have elected to receive retiree health care coverage through the City of Royal Oak Retiree Health Care Plan. This includes one member who is deferred, but is currently receiving benefits.

Age	Deferred Members	
	General	Police/Fire
Under 55	1	0
55-59	0	0
60-64	0	0
65 & Over	0	0
<b>Totals</b>	<b>1</b>	<b>0</b>

The number counts above only include those deferred vested who are eligible based on service at termination to receive retiree health care coverage through the City of Royal Oak Retiree Health Care Plan but who have not yet begun to do so.

## **SECTION E**

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### **ACCOUNTING INFORMATION**

## Accounting Information

Valuation Date	June 30, 2024
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Dollar Closed
Remaining Amortization Periods	14 Years
Asset Valuation Method	Market Value
Actuarial Assumptions:	
Investment Rate of Return	7.25%
Projected Salary Increases	3.25% - 5.41%
Health Care Cost Trend Rate	7.25% Initial Pre-65 Medical and Drug 6.50% Initial Post-65 Medical and Drug 3.50% Initial Dental and Vision 3.50% Ultimate (All)

## SECTION F

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### ACTUARIAL COST METHOD AND ACTUARIAL ASSUMPTIONS

## Valuation Methods

**Actuarial Cost Method.** Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

- (i) The annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and
- (ii) Each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains (losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded Actuarial Accrued Liabilities (UAAL) (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions. The UAAL was determined using the funding value of assets and actuarial accrued liability calculated as of the valuation date. The UAAL amortization payment (one component of the contribution requirement), is the level dollar amount required to fully amortize the UAAL over the 14-year period beginning with the fiscal year ending June 30, 2026. This UAAL payment does not reflect any payments expected to be made between the valuation date and the fiscal year for which the contributions in this report have been calculated.

**Actuarial Value of System Assets.** Last year's valuation assets are increased by contributions, expected investment income on last year's valuation assets and non-investment net cash flow, and reduced by refunds, benefit payments and expenses. To this amount is added the phased-in recognition of investment income. The phased-in recognition is the sum over the five years ending on the valuation date of 20% of the difference between each year's expected return and actual market return.

The following amortization factors were used in developing the Annual Recommended Contribution for the fiscal year shown.

7.25% Interest	Fiscal Year Ending	
	June 30, 2026	June 30, 2027
General (Level Dollar)	8.9245	8.5357
Police & Fire (Level Dollar)	8.9245	8.5357

## Actuarial Assumptions

The rationale for the rates of merit and seniority salary increase, retirement rates, early retirement rates, rates of separation from active membership, and disability rates used in this valuation is included in the City of Royal Oak Retirement System's 5-year Experience Study Report, dated October 24, 2023, for the period of July 1, 2017 through June 30, 2022.

**The rate of investment return** was 7.25% a year, compounded annually net after investment and administrative expenses.

The assumed real return is the rate of return in excess of price inflation. Considering other assumptions used in the valuation, the 7.25% nominal rate translates to a net real return of 4.00% a year.

**The rates of salary increase** used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which future contributions will be based.

Sample Ages	% Increase in Salary at Sample Ages				
	Merit and Seniority		Base (Economic)	Increase Next Year	
	General	Police/Fire		General	Police/Fire
20	2.16%	1.69%	3.25%	5.41%	4.94%
25	1.76%	1.69%	3.25%	5.01%	4.94%
30	1.51%	1.69%	3.25%	4.76%	4.94%
35	1.34%	1.18%	3.25%	4.59%	4.43%
40	1.20%	0.44%	3.25%	4.45%	3.69%
45	0.94%	0.14%	3.25%	4.19%	3.39%
50	0.64%	0.08%	3.25%	3.89%	3.33%
55	0.37%	0.02%	3.25%	3.62%	3.27%
60	0.09%	0.00%	3.25%	3.34%	3.25%
65	0.00%	0.00%	3.25%	3.25%	3.25%
Ref	760	761	3.25%		

The number of active members is assumed to decrease in the future.



## Actuarial Assumptions (Continued)

*The mortality tables* used were as follows:

### General

- **Healthy Pre-Retirement:** Pub-2010 General Employee Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 General Healthy Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 Non-Safety Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

### Police and Fire

- **Healthy Pre-Retirement:** Pub-2010 Safety Employee Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Healthy Post-Retirement:** Pub-2010 Safety Healthy Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.
- **Disability Retirement:** Pub-2010 Safety Disabled Retiree Mortality Tables, amount-weighted, and projected with mortality improvements using the fully generational MP-2021 projection scale from a base year of 2010.

## Actuarial Assumptions (Continued)

### General

Sample Attained Ages	Healthy Pre-Retirement		Healthy Post-Retirement		Disabled Retirement	
	Future Life		Future Life		Future Life	
	Expectancy (Years)*		Expectancy (Years)*		Expectancy (Years)*	
	Men	Women	Men	Women	Men	Women
55	34.20	36.25	30.72	33.55	22.91	25.76
60	29.29	31.22	25.99	28.68	19.73	22.42
65	24.52	26.29	21.48	23.94	16.77	19.12
70	19.86	21.45	17.21	19.40	13.94	15.73
75	15.32	16.73	13.27	15.14	11.16	12.43
80	10.90	12.17	9.79	11.31	8.57	9.47

### Police and Fire

Sample Attained Ages	Healthy Pre-Retirement		Healthy Post-Retirement		Disabled Retirement	
	Future Life		Future Life		Future Life	
	Expectancy (Years)*		Expectancy (Years)*		Expectancy (Years)*	
	Men	Women	Men	Women	Men	Women
55	33.50	35.91	30.60	32.58	29.40	31.55
60	28.50	30.87	25.70	27.66	24.71	26.91
65	23.62	25.88	21.09	23.00	20.33	22.54
70	18.90	20.96	16.79	18.60	16.28	18.40
75	14.42	16.22	12.87	14.52	12.55	14.48
80	10.23	11.75	9.43	10.89	9.31	10.89

\* Based on retirements in 2024. Retirements in future years will reflect improvements in life expectancy.

## Actuarial Assumptions (Continued)

**The rates of retirement** used to measure the probability of eligible members retiring during the next year were as follows:

Percents of Active Members Retiring within Next Year					All Police, Police and Fire Department Heads, and	
Retirement Ages	General	Police Service Aides	Fire Hired Before 10/1/09 & All Police	Fire Hired After 10/1/09	Retirement Service	Fire Hired Before 10/1/09
45-49						
50	15%	32.5%		60%	25	60%
51	10%	27.5%		60%	26	60%
52	10%	27.5%		60%	27	60%
53	10%	27.5%		40%	28	40%
54	10%	27.5%		40%	29	40%
55	10%	27.5%	40%	40%	30	40%
56	10%	27.5%	40%	40%	31	40%
57	10%	27.5%	40%	40%	32	40%
58	10%	27.5%	40%	40%	33	40%
59	10%	27.5%	40%	40%	34	40%
60	10%	27.5%	40%	40%	35	40%
61	10%	27.5%	40%	40%	36	40%
62	30%	47.5%	40%	40%	37	40%
63	15%	32.5%	40%	40%	38	40%
64	15%	32.5%	40%	40%	39	40%
65	50%	100%	100%	100%	40	100%
66	40%					
67	40%					
68	40%					
69	40%					
70	100%					
Ref.	625	3412	3411	3411		3411

## Actuarial Assumptions (Concluded)

**Rates of disability** among active members.

Sample Ages	% of Active Members Becoming Disabled within Next Year		
	General & PSA		Police & Fire
	Male	Female	
20	0.04%	0.02%	0.08%
25	0.05%	0.03%	0.11%
30	0.05%	0.04%	0.19%
35	0.07%	0.07%	0.23%
40	0.11%	0.10%	0.53%
45	0.16%	0.14%	0.60%
50	0.26%	0.23%	0.71%
55	0.46%	0.38%	0.83%
60	0.77%	0.55%	0.90%
Ref.	33	34	45
Multiplier:	50%	50%	75%

**Rates of separation from active membership** were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating within Next Year *	
		General & PSA	Police & Fire
ALL	0	12.00%	10.00%
	1	9.00%	7.00%
	2	7.00%	5.00%
	3	5.00%	4.00%
	4	4.50%	3.50%
25	5 & Over	4.50%	2.50%
30		4.00%	2.00%
35		3.50%	1.25%
40		2.50%	0.75%
45		2.00%	0.50%
50		1.50%	0.25%
55		1.00%	0.25%
60		1.00%	0.25%
65		1.00%	0.25%
Ref.		29	30
		1300	1177

## Miscellaneous and Technical Assumptions

<b>Decrement Operation</b>	Disability and mortality decrements do not operate during the first 5 years of service. Disability also does not operate during retirement eligibility.
<b>Decrement Timing</b>	Decrements of all types are assumed to occur mid-year.
<b>Eligibility Testing</b>	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
<b>Incidence of Contributions</b>	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
<b>Marriage Assumption</b>	90% of males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
<b>Pay Increase Timing</b>	Beginning of year.
<b>Medicare Coverage</b>	Assumed to be available for all covered employees on attainment of age 65.
<b>Election Percentage</b>	It was assumed that 95% of eligible future retirees would choose to receive retiree health care benefits through the City. Of those assumed to elect coverage, 70% of males and 70% of females in the General groups were assumed to elect two-person coverage and 80% of males and 80% of females in the Police/Fire groups were assumed to elect two-person coverage, if eligible. For those that elect two-person coverage, it was assumed that coverage would continue to the spouse upon death of the retiree, if eligible.

## APPENDIX

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## Glossary

**Accrued Service.** The service credited under the plan which was rendered before the date of the actuarial valuation.

**Actuarial Accrued Liability.** The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”

**Actuarial Assumptions.** Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

**Actuarial Cost Method.** A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”

**Actuarial Equivalent.** A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

**Actuarial Present Value.** The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

**Actuarially Determined Contribution.** The Actuarially Determined Contribution is the normal cost plus the portion of the unfunded actuarial accrued liability to be amortized in the current period. The Actuarially Determined Contribution is an amount that is actuarially determined in accordance with the requirements so that, if paid on an ongoing basis, it would be expected to provide sufficient resources to fund both the normal cost for each year and the amortized unfunded liability.

**Amortization.** Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

**Governmental Accounting Standards Board (GASB).** GASB is the private, nonpartisan, nonprofit organization that works to create and improve the rules U.S. state and local governments follow when accounting for their finances and reporting them to the public.

**Implicit Rate Subsidy.** It is common practice for employers to allow retirees to continue in the employer’s group health insurance plan (which also covers active employees), often charging the retiree some portion of the premium charged for active employees. Under the theory that retirees have higher utilization of services, the difference between the true cost of providing retiree coverage and what the retiree is being charged is known as the implicit rate subsidy.



## Glossary (Concluded)

**Medical Trend Rate (Health Care Inflation).** The increase in the cost of providing health care benefits over time. Trend includes such elements as pure price inflation, changes in utilization, advances in medical technology, and cost shifting.

**Normal Cost.** The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

**Other Postemployment Employee Benefits (OPEB).** OPEB are postemployment benefits other than pensions. OPEB generally takes the form of health insurance and dental, vision, prescription drugs or other health care benefits.

**Reserve Account.** An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

**Unfunded Actuarial Accrued Liability.** The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”

**Valuation Assets.** The value of current plan assets recognized for valuation purposes.